

WHAT IS CLAIMED IS:

1. Printing-cylinder support unit for a printing machine, comprising a support frame and supporting means which are mounted on said support frame and are designed to rotatably support one of a plurality of printing cylinders in a retaining position, it being possible for said printing cylinders to have different diameters, and said supporting means comprising at least three support elements for each axial end of a printing cylinder, which support elements are each designed, in the retaining position, to interact with a running surface of a bearing ring which is concentrically connected to the corresponding end of the printing cylinder,  
wherein one of said support elements comprises a support ring and suspension means,  
said suspension means connect said support ring to said support frame in such a manner that it can rotate about its axis,  
said support ring is provided on the inner side with a support-ring running surface,  
the internal diameter of said support ring is greater than the external diameter of said bearing ring of each of said printing cylinders,  
and said support ring is designed so that, in the retaining position, said support-ring running surface comes into contact with the running surface of said bearing ring.
2. Printing cylinder support unit according to claim 1, in which said suspension means comprise running rollers for rotatably connecting said support ring to said support frame.
3. Printing cylinder support unit according to claim 1, in which said suspension means comprise an annular bearing which comprises an inner race and an outer race which can rotate concentrically with respect to one another, said outer race being connected to said support frame while said

inner race is concentrically connected to said support ring or forms an integral unit therewith.

4. Printing cylinder support unit according to claim 1, in which said suspension means comprise springs which are designed to exert a force on said bearing ring, via said support ring, in the axial direction of said bearing ring.
5. Printing machine, provided with a printing cylinder support unit according to claim 1.